

WHAT IS CLAIMED IS:

1. A monitoring system comprising:

a camera section including multiple cameras and image data cutdown means, the image data cutdown means reducing the amount of original image data representing camera images captured by the multiple cameras, the camera section outputting the reduced image data;

a transmission path for transmitting the reduced image data that has been output from the camera section; and

an image processing section, which receives the reduced image data through the transmission path and produces a synthesized image from the reduced image data,

wherein the camera section or the image processing section includes cutdown mode selecting means for selecting a cutdown mode, in which the original image data for use in image synthesis has its amount cut down, for the image data cutdown means in accordance with a correspondence between the synthesized and camera images.

2. The system of Claim 1, wherein the image processing section selectively produces any of multiple types of synthesized images and changes the types of the synthesized images to be produced, and

wherein the cutdown mode selecting means changes the cutdown modes according to the type of the synthesized image to

be produced by the image processing section.

3. The system of Claim 1, wherein the cutdown mode selecting means comprises a resolution specifier for specifying resolutions that should be necessary for respective areas of each said camera image for use in the image synthesis to produce the synthesized image, and

wherein the image data cutdown means compresses the original image data, representing the camera images for use in the image synthesis, according to the resolutions specified by the resolution specifier.

4. The system of Claim 3, wherein the image data cutdown means compresses the original image data by discrete cosine transform.

5. The system of Claim 1, wherein the cutdown mode selecting means comprises an area specifier for specifying areas that should be necessary to produce the synthesized image for each said camera image for use in the image synthesis, and

wherein the image data cutdown means removes an unnecessary part from the original image data that represents each said camera image for use in the image synthesis, the unnecessary part corresponding to the remaining area of the camera image other than the areas specified by the area specifier.

6. The system of Claim 1, wherein the original image data is read out from each said camera in a controllable order, and

wherein the camera section or the image processing section comprises a readout controller for controlling the order, in which the original image data representing each said camera image for use in the image synthesis is read out, in compliance with the cutdown mode selected by the cutdown mode selecting means.

7. The system of Claim 1, wherein the cameras are mounted on a vehicle to capture images of the vehicle's surroundings.